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IN THE CLAIMS

1. (Currently Amended) A method of reducing notching in etched anisotropic openings in silicon over an insulator layer comprising:

anisotropically etching openings in silicon with a sulfur hexafluoride etchant in a plasma etch chamber fitted with a powered substrate support while applying pulsed bias power ~~is applied~~ to the substrate support electrode during the etch step;

overetching the silicon while applying pulsed bias power to the substrate support electrode.

2. (Original) A method according to claim 1 wherein the applied bias power to the substrate support electrode is from 3 to 100 Watts.

3. (Cancelled)

4. (Previously Presented) A method according to claim 2 wherein the pulsed bias power is applied at a duty cycle of 10% to 80% using a 6 microsecond period.

5. (Original) A method according to claim 4 wherein the pulsed bias power is applied at a duty cycle of 35%.

6. (Original) A method according to claim 1 wherein, prior to etching, a deposition step using a fluorocarbon or hydrofluorocarbon gas is used to deposit a fluorine-containing polymer over the substrate.

7. (Cancelled)

8. (Original) A method according to claim 6 wherein no bias power is used during the deposition step.

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9. (Original) A method according to claim 6 wherein the pressure in the chamber is maintained at about 5 to 300 millitorr during the deposition step.

10. (Previously presented) a method according to claim 6 wherein no bias power is used during the deposition step.

11. (Previously presented) A method according to claim 6 wherein etching is carried out in the absence of oxygen.

12. (canceled)

13. (canceled)

14. (New) A method according to claim 1 wherein, prior to overetching, a deposition step using a fluorocarbon or hydrofluorocarbon gas is used to deposit a fluorine-containing polymer over the substrate.